REMARKS

The claims stand rejected on the basis of the primary references, US Published Application 2002/0176970 (Kobayashi et al.) and U. S. 6,183,851 (Mishima), each in view of US Published Application 2001/0036552 (Otani et al). These rejections are traversed for the following reasons.

The present invention is to a inkjet recording medium that is made in a certain manner. To make the inkjet recording medium, a binder is applied to a base material. The binder contains a colloidal silica that has specific particle size characteristics. The colloidal silica has a primary particle diameter of from 10 to 100 nanometers. These primary particles make up secondary particles that have a diameter of 1.5 to 3.0 times that of the primary particles.

The examiner agrees that neither of the primary references describes or suggests using a colloidal silica of the type required by the present claims. The examiner thus relies on the secondary reference, Otani et al, for this teaching. To that end, the examiner points to paragraphs [0018] and [0020] of the Otani reference.

Applicants maintain that the Otani reference does not disclose the specific particle size parameters that are recited in the present claims.

At paragraph [0018], Otani describes the size of his silica particles as being from 30 to 500 nanometers, preferably from 200 to 400 nanometers. These diameters would correspond to the "secondary" particle size of the present claims, in the case in which the pigment is a colloidal type as he later describes in paragraph [0020]. In paragraph [0020], Otani describes the size of the primary particles in such a colloidal pigment as being from 5-60 nanometers.

Taken together, these paragraphs do not describe a colloidal pigment in which the ratio of secondary to primary particle size is from 1.5 to 3.0. The values given by Otani represent ratios of from 6:1 (30:5) to 100:1 (500:5), in the case where the primary particle diameter is at the low end of his range 5 nm, and up to about 8.3:1 (500:60) when the primary particle diameter is at the high end of the range (60 nm). Otani's preferred secondary particle diameters are at least 3.3 times that of even his largest primary particle diameter (200/60 = ~3.3).

The significance of the ratio of secondary to primary particle diameters can be seen from the data in Table 1, page 28 of the application. The relevant ratios in Comparative Samples 2 and 3 range from 5.5 to 11.1:1, which is closely akin to that described in Otani et

al. These samples have poorer gloss and ink clarity (both dry and pigment types) than the examples of the invention, particularly Example 2, which most closely matches up to those comparative samples.

Therefore, applicants submit that no combination of Otani et al with either Kobayashi or et al. or Mishima leads to the present invention. Furthermore, evidence of record shows that the selection of the ratio of secondary to primary particle diameter leads to improvements in performance, namely gloss, and image quality.

For this reason, the invention defined by the present claims is believed to be patentable over the references of record. A Notice of Allowance is respectfully requested.

Respectfully submitted,
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